

## ABSTRACT OF THE DISCLOSURE

To provide an electrode for a dielectrophoretic apparatus in which a background detected by reflecting an excited light on an electrode present under the substance (molecule) is reduced and an S/N ratio is enhanced. Also, there is provided an dielectrophoretic apparatus, in an apparatus in which a liquid containing substances to be separated is present in a non-uniform electric field formed by a dielectrophoretic electrode, and separation is carried out by a dielectrophoretic force exerting on the substances, wherein the collecting ability of substances is enhanced.

The present invention is characterized in that a vacant space is provided in an electrode whereby substances subjected to influence by a negative dielectrophoretic force can be concentrated in said vacant space of an electrode, or above or below portion of the space.

The present invention is further characterized in that in a dielectrophoretic apparatus provided with an electrode on a base plate, a lower level place than the electrode level is formed between (or among) the electrodes to realize an increase of a non-uniform electric field region, thereby enhancing the collecting ability.